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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,152	07/03/2001	Michael Wen-Chein Yang	POLY-1193	7052

7590

01/15/2002

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EXAMINER

HAMILTON, CYNTHIA

ART UNIT

PAPER NUMBER

1752

DATE MAILED: 01/15/2002

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/898,152

Applicant(s)

YANG ET AL.

Examiner

Cynthia Hamilton

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/3/01, 8/3/01, 8/13/01.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30-34, 41 and 42 is/are allowed.
- 6) ☒ Claim(s) 1-29, 35-40 and 43-45 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. Claims 1-14 have been cancelled. Claims 15-45 have been added.
2. The disclosure is objected to because of the following informalities: On page 17, line three, "Blip" should be ---Slip---.

Appropriate correction is required.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 15-29 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The process of instant claims 15-29 uses a photosensitive element with an ablation layer "which is ablatable by infrared radiation and opaque to non-infrared actinic radiation". The generic group of infrared radiation ablatable is not originally disclosed in this application. There is a generic disclosure to laser radiation and a species specific disclosure on page 18, top paragraph to a sealed-CO2 absorbing laser at 10,600 nm (10.6 um) and that a YAG laser at 1,060 nm (1.06 um) did not work. There is no disclosure to the genus of infrared ablatable layers. Further, the generic grouping of opacity to "non-infrared actinic radiation" is not found in the original disclosure and claims. The original disclosure is to

Art Unit: 1752

a photocurable article with a dopant present and to a UV absorbing layer. In all instances, the original disclosure makes use of a UV absorber. The instant process of claims 15-29 are not limited to the presence of such a UV absorber. Thus, the generic film "opaque to non infrared actinic radiation" is not originally disclosed nor is the generic process of using a film without a UV dopant as found in the original disclosure. There is no original disclosure to the presence of an ablation layer comprised of at least one infrared absorbing material either. The examiner believes there is insufficient support in the original claims and specification to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the process of instant claims 1-29.

6. Claims 20 and 35 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The examiner cannot find support in the originally filed claims or specification for a photopolymerizable layer with both (A) a member from the group of claim 19 and a member from the group of claim 20 which is dependent upon claim 19. The mixture is not supported. The same is true of the process of claim 35 dependent upon claim 34.

7. Claims 29 and 43 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. With respect to instant claims 29 and 30, the examiner failed to find support for and exposing step conducted under application of vacuum in the original claims or specification.

Art Unit: 1752

8. Claims 27-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Reference in claims 27-28 is made to "said laser" in claim 15 but it is not clear which laser is being referenced. The process of claim 15 refers to the ablation layer being "capable of being exposed to laser ablation" and to "ablating said ablation layer using a laser". There is no requirement these be the same laser. In view of claim 27 being drawn to an infrared laser and claim 28 being drawn to a UV laser, there is some confusion as to what laser is being addressed. Is the laser the same in both references?

9. Claims 44-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Reference in claims 44-45 is made to "said laser" in claim 30 but it is not clear which laser is being referenced. The process of claim 30 refers to the radiation absorbing layer being "capable of being photoablated by a laser operating at a first energy level in the wavelength range of 300-400 nm" then "ablating said absorbing layer using a laser". There is no requirement these be the same laser. In view of claim 27 being drawn to an infrared laser and claim 28 being drawn to a UV laser, there is some confusion as to what laser is being addressed. Thus, "said laser" has no clear antecedent basis in these claims.

10. Claim 15 is objected to because of the following informalities: In line 8, "ablation" should be "ablation". Appropriate correction is required.

11. Claims 36-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what is meant by "the at least one binder is a polyamide" at the end of

Art Unit: 1752

claim 36. There is no antecedent basis for "binder" in claim 30 and the limits to the "polymeric matrix" are given as a group before this binder limitation. Is this a separate limitation than the "matrix" or is it a requirement that the matrix contain two polymer? What is intended here is not clear.

12. Claim 40 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 40 limits the dopant of claim 30 to radiation at a wavelength of 10.6 um or 10,600 nm. Since the dopant of claim 30 is required to have a high extinction coefficient in the wavelength range of 300-400 nm, the examiner is unsure whether the intention here is to add a second requirement to the absorption range of the dopant or to change the absorption range. Since the claim language to be proper must remain within the limits of the original claim, the dopant is seen to be limited to having at least both absorption characteristics. However, the examiner is not sure this is what is meant here and is confused by the claim language.

13. The information disclosure statement filed August 3, 2001 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. The references not given nor cited in an application earlier relied on for an earlier effective filing date under 35 U.S.C. 120 in this application as required in 1.98(d) (1) as required if references are not submitted have been struck from the information disclosure statement. They are references AA-AJ, BA-CC, EE-EX, DJ-DO and GB-GG. They have not been considered. They are referenced to applications 09/417,043 and 09/507,840. Reference FG

Art Unit: 1752

was struck from the list because it did not conform to any known Japanese document citation format, thus could not be identified.

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 15-17, 21, 23, 25-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Scott Paper Company (GB 1 492 070). In Example IV of Scott Paper Company is disclosed the instant process of applicant's claims 15-17, 21, 23, 25-26. The cellulosic binder is nitrocellulose, the infrared absorber is aluminum powder present in 10.4wt % and the layer imaged is referred to as photopolymerized in Example I. The same negative working composition is used in all the Examples of Scott Paper Company. The laser used is a YAG laser which is cited by applicants on page 18, lines 1-5, having a wavelength of exposure of 1.06 um, i.e. 1,060 nm, which is in the infrared range. The dopant used by Scott Paper Company to obtain opacity in the UV was carbon black, which is held to be inherently non-migratory.

17. Claims 15-17, 21, 23, 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scott Paper Company (GB 1 492 070). The processes of Scott Paper Company teach the

Art Unit: 1752

instant processes of claims 15-17, 21, 23, 25-27. In Example IV of Scott Paper Company is disclosed the instant process of applicant's claims 15-17, 21, 23, 25-26. The cellulosic binder is nitrocellulose, the infrared absorber is aluminum powder present in 10.4wt % and the layer imaged is referred to as photopolymerized in Example I. The same negative working composition is used in all the Examples of Scott Paper Company. The laser used is a YAG laser which is cited by applicants on page 18, lines 1-5, having a wavelength of exposure of 1.06 μm , i.e. 1,060 nm, which is in the infrared range. The dopant used by Scott Paper Company to obtain opacity in the UV was carbon black, which is held to be inherently non-migratory. With respect to using other lasers besides the YAG laser, Scott Paper company in col. 2, lines 24-39, teach the selection of an appropriate laser for removing the layer of material which is opaque to ultraviolet light is well within the skill of the ordinary worker in the art. Thus, the use of an IR laser emitting a light at 10.6 μm in the processes of Scott Paper Company is held within the skill level of the artisan of the art as would be the adaptation of the infrared absorbing material to match that laser. In Scott Paper Company, see particularly page 1, lines 50-86, page 2, lines 1-6, 24,45, Examples I, IV, V and claims.

18. The examiner notes for the record that applicants on page 18, lines 1-5, disclose the YAG laser would not work with the instant plate set forth there. Thus, there is a showing that applicant's working materials are not functional in all infrared laser wavelengths. This is seen as some evidence supporting the rejections made by the examiner directed to the originally filed specification and claims not directing a worker of ordinary skill in the art to assume infrared ablatability as a disclosed species were part of the originally filed processes or plates.

Art Unit: 1752

19. Claims 15-19, 22-26, 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Fan (6,238,837 B1). Fan (6,238,837 B1) cited by applicants has a filing date of May 1, 1995 which is before the filing date of the oldest effective filing date of the same application, i.e. 08/479,339 filed June 7, 1995. However, the oldest effective filing date is June 25, 1993 drawn to a continuation-in-part of US sn 08/082,689. The examiner has read this oldest application and found the same data supporting an IR ablatable layer in both the current application and the oldest application. It is a series of tests showing that the YAG laser does not ablate the instant layers but the CO2 laser does but also damages the underlying polymerizable layer. However, the CO2 laser does work. However, the instant claims 15-29 are the only support found for the breadth of scope now claimed by applicants and that date of claim submission is August 13, 2001. Thus, Fan is seen as prior art with respect to these claims wherein support is not found in the applications as filed. Fan anticipates the instant process wherein butadiene-styrene block polymers are listed as one choice of binder in the photopolymerizable layer. The examiner notes Fan does not claim a process and the element claimed by Fan is limited to the presence of a monomer as well as an elastomeric binder. However, the process of imaging with an infrared ablatable layer comprised of a binder that can be a polyamide or hydroxyalkylcellulose is disclosed. In Fan, see particularly Abstract, col. 2, lines 8-10, 23-28, col. 3, lines 48-65, col. 4, lines 20-31, 55-61, col. 5, lines 65-67, col. 6, lines 1-35, col. 7, lines 55-63, col. 9, lines 10-col. 10, lines 48, col. 12, lines 8-col. 13, lines 40, Examples and claims.

20. Claims 30-34 and 41-42 are allowable.

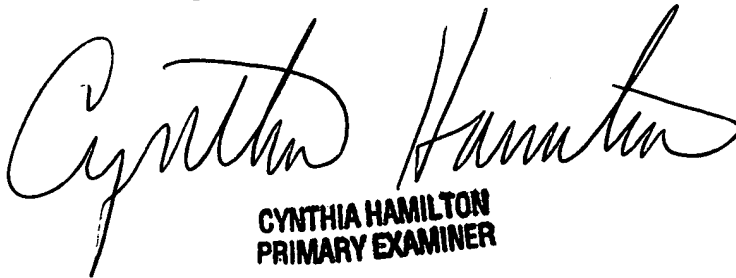
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Primary Examiner Cynthia Hamilton whose telephone number is (703) 308-3626. The examiner can normally be reached on Monday-Friday, 9:30 am to 5:00 pm.

Art Unit: 1752

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Baxter can be reached on (703) 308-2303. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0661.

Cynthia Hamilton
January 14, 2002



**CYNTHIA HAMILTON
PRIMARY EXAMINER**